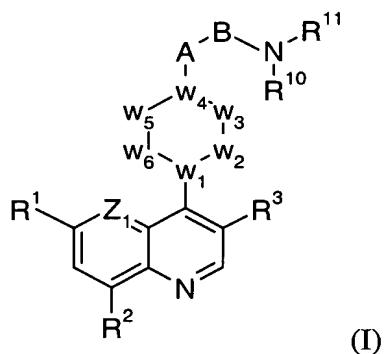


Amendments to the claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended): A compound of formula (I)



wherein:

Z₁ is N or CR^{1a};

R¹ and R^{1a} are independently hydrogen; hydroxy; (C₁₋₆)alkoxy unsubstituted or substituted by (C₁₋₆)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted or N-substituted by one or two (C₁₋₆)alkyl, acyl, (C₁₋₆)alkylsulphonyl, CONH₂, hydroxy, (C₁₋₆)alkylthio, heterocyclithio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁₋₆)alkylsulphonyloxy; (C₁₋₆)alkoxy-substituted(C₁₋₆)alkyl; halogen; (C₁₋₆)alkyl; (C₁₋₆)alkylthio; trifluoromethyl; trifluoromethoxy; nitro; azido; cyano; acyl; acyloxy; acylthio; (C₁₋₆)alkylsulphonyl; (C₁₋₆)alkylsulphoxide; arylsulphonyl; arylsulphoxide; or an amino, piperidyl, guanidino or amidino group unsubstituted or N-substituted by one or two (C₁₋₆)alkyl, acyl or (C₁₋₆)alkylsulphonyl groups; or R¹ and R^{1a} may together form ethylenedioxy;

provided that when Z₁ is CR^{1a} then R¹ is not H;

R² is H or halogen;

provided that when Z₁ is N, then R² is H;

R³ is hydrogen; halogen; hydroxy; cyano; CF₃; nitro; azido; acyl; aryl; heteroaryl; CO₂H; acyloxy; acylthio; (C₁-6)alkyl unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclithio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₁-6)alkoxy unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclithio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₃-7)cycloalkyl; (C₁-6)alkoxy-substituted(C₁-6)alkyl; (C₁-6)alkylthio; trifluoromethoxy; (C₁-6)alkylsulphonyl; (C₁-6)alkylsulphoxide; arylsulphonyl; or arylsulphoxide; or an amino, piperidyl, guanidino or amidino group unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups;

w₁ is N, C, or CR⁴;

w₂ is C=O, CR⁴, or CR⁴R⁵;

w₃ is C=O or CR⁴R⁵;

w₄ is N or CR⁴;

w₅ is C=O or CR⁴R⁵;

w₆ is C=O, CR⁴, or CR⁴R⁵;

Alternatively or, one of W₂, W₃, W₅ and W₆ is CR⁴R⁵CR⁴R⁵ and the others are defined as above;

wherein each R⁴ and R⁵ is independently hydrogen; halogen; hydroxy; cyano; CF₃; nitro; azido; acyl; aryl; heteroaryl; CO₂H; acyloxy; acylthio; (C₁-6)alkyl unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclithio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₁-6)alkoxy unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl,

CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₃-7)cycloalkyl; (C₁-6)alkoxy-substituted(C₁-6)alkyl; (C₁-6)alkylthio; trifluoromethoxy; (C₁-6)alkylsulphonyl; (C₁-6)alkylsulphoxide; arylsulphonyl; or arylsulphoxide; or an amino, piperidyl, guanidino or amidino group unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups; or two R⁵ groups are joined together to form bicycloheptane;

A is CR⁶R⁷ or C(O);

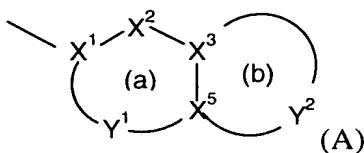
B is CR⁸R⁹ or C(O);

wherein R⁶, R⁷, R⁸, and R⁹ are independently hydrogen; halogen; hydroxy; cyano; CF₃; nitro; azido; acyl; aryl; heteroaryl; CO₂H; acyloxy; acylthio; (C₁-6)alkyl unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₁-6)alkoxy unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, guanidino or amidino any of which is unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, CONH₂, hydroxy, (C₁-6)alkylthio, heterocyclthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C₁-6)alkylsulphonyloxy; (C₃-7)cycloalkyl; (C₁-6)alkoxy-substituted(C₁-6)alkyl; (C₁-6)alkylthio; trifluoromethoxy; (C₁-6)alkylsulphonyl; (C₁-6)alkylsulphoxide; arylsulphonyl; or arylsulphoxide; or an amino, piperidyl, guanidino or amidino group unsubstituted or N-substituted by one or two (C₁-6)alkyl, acyl or (C₁-6)alkylsulphonyl groups;

R¹⁰ is hydrogen; aryl; heteroaryl; (C₁-6)alkyl unsubstituted or substituted by one or two (C₁-6)alkoxy, hydroxy, amino, piperidyl, piperazinyl, morpholino, guanidino, or amidino, any of which is unsubstituted or N-substituted by one or two aryl, heteroaryl, halogen, cyano, CF₃, unsubstituted (C₁-6)alkyl, acyl, (C₁-6)alkylsulphonyl, arylsulphonyl, hydroxy, (C₁-6)alkylthio, heterocyclthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy, or (C₁-6)alkylsulphonyloxy, so long as provided that the substitution does not lead to an unstable

compound; (C₁₋₆)alkoxy-substituted(C₁₋₆)alkyl; hydroxy-substituted(C₁₋₆)alkyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenylcarbonyl; (C₁₋₆)alkoxycarbonyl; CO₂H; or CF₃;

R₁₁ is a group -U-R₁₂ where R₁₂ is a substituted or unsubstituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

at least one of rings (a) and (b) is aromatic;

X¹ is C or N when part of an aromatic ring or CR¹⁴ when part of a non aromatic ring;

X² is N, NR¹³, O, S(O)_X, CO or CR¹⁴ when part of an aromatic or non-aromatic ring or may in addition be CR¹⁴R¹⁵ when part of a non aromatic ring;

X³ and X⁵ are independently N or C;

Y¹ is a 0 to 4 atom linker group each atom of which is independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring,

Y² is a 2 to 6 atom linker group, each atom of Y² being independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring;

each of R¹⁴ and R¹⁵ is independently selected from: H; (C₁₋₄)alkylthio; halo; (C₁₋₄)alkyl; (C₂₋₄)alkenyl; hydroxy; hydroxy(C₁₋₄)alkyl; mercapto(C₁₋₄)alkyl; (C₁₋₄)alkoxy; trifluoromethoxy; nitro; cyano; carboxy; amino or aminocarbonyl unsubstituted or substituted by (C₁₋₄alkyl). (C₁₋₄alkyl);

each R¹³ is independently H; trifluoromethyl; (C₁₋₄)alkyl unsubstituted or substituted by hydroxy, carboxy, (C₁₋₄)alkoxy, (C₁₋₆)alkylthio, halo or trifluoromethyl; (C₂₋₄)alkenyl; or aminocarbonyl wherein the amino group is optionally substituted (C₁₋₄)alkyl;

each x is independently 0, 1 or 2;

U is CO, SO₂, CH₂, or CR¹⁶R¹⁷;

R¹⁶ and R¹⁷ are independently selected from H; aryl; heteroaryl; (C₁₋₆)alkyl; (C₁₋₆)alkyl substituted by (C₁₋₆)alkoxy, hydroxy, amino, piperidyl, piperazinyl, morpholino, guanidino, or amidino, any of which is substituted or N-substituted by one or two H, aryl, heteroaryl, halogen, cyano, CF₃, (C₁₋₆)alkyl, acyl, (C₁₋₆)alkylsulphonyl, arylsulphonyl, hydroxy, (C₁₋₆)alkylthio, heterocyclthio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy, or (C₁₋₆)alkylsulphonyloxy, ~~so long as provided that~~ the substitution does not lead to an unstable compound; (C₁₋₆)alkoxy-substituted(C₁₋₆)alkyl; hydroxy-substituted(C₁₋₆)alkyl; amino-substituted(C₁₋₆)alkyl, which is N-substituted by one or two (C₁₋₆)alkyl, acyl, (C₁₋₆)alkylsulphonyl, or arylsulphonyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenylcarbonyl; (C₁₋₆)alkoxycarbonyl; CO₂H; or CF₃; or

a pharmaceutically acceptable salt ~~or salts~~ thereof.

2. (Currently amended): A compound or salt according to claim 1, wherein R¹ is F, Cl, OCH₃, methyl, or SCH₃.
3. (Currently amended): A compound or salt according to claim 1, wherein R^{1a} is H, OCH₃, or OCH₂CH₂OCH₃.
4. (Currently amended): A compound or salt according to claim 1, wherein R² is H or F.
5. (Currently amended): A compound or salt according to claim 1, wherein R³ is Cl or F.
6. (Currently amended): A compound or salt according to claim 1, wherein each R⁴ is independently H, OH, OCH₃, or CH₂OH.
7. (Currently amended): A compound or salt according to claim 1, wherein R⁵ is H.
8. (Currently amended): A compound or salt according to claim 1, wherein the group -U- is -CH₂-.

9. (Currently amended): A compound or salt according to claim 1, wherein R¹² is:
benzo[1,2,5]thiadiazol-5-yl;
4H-benzo[1,4] thiazin-3-one-6-yl;
2,3-dihydro-benzo[1,4]dioxin-6-yl;
benzo[1,2,3]thiadiazol-5-yl;
3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;
7-fluoro-3-oxo-3,4-dihydro-2H-benzo[1,4] oxazin-6-yl;
2-oxo-2,3-dihydro-1H-pyrido[2,3-b][1,4]thiazin-7-yl;
2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl;
[1,2,3]thiadiazolo[5,4-b]pyridin-6-yl;
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;
7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or
7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl.

10. (Currently amended): A compound according to claim 1, wherein the compound is:

6-(2-[1-(6-methoxyquinolin-4-yl)piperidin-4-yl]ethylamino)methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one;
6-(2-[1-(6-methoxyquinolin-4-yl)piperidin-4-yl]ethylamino)methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one;
(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-{2-[1-(6-methoxyquinolin-4-yl)piperidin-4-yl]ethyl}amine;
6-(2-[1-(6-methoxynaphthyridin-4-yl)piperidin-4-yl]ethylamino)methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one;
6-(2-[1-(6-methoxynaphthyridin-4-yl)piperidin-4-yl]ethylamino)methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one;
(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-{2-[1-(6-methoxynaphthyridin-4-yl)piperidin-4-yl]ethyl}amine;
6-(2-[1-(3-chloro-6-methoxy-[1,5]quinolin-4-yl)phenyl]ethylamino)methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one;

6-($\{2-[1-(3\text{-chloro-6-methoxy-[1,5]quinolin-4-yl)phenyl]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
 $\{2-[1-(3\text{-chloro-6-methoxyquinolin-4-yl)piperidin-4-yl}]\text{ethyl}\}$ -(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amine;
6-($\{2-[1-(3\text{-chloro-6-methoxy-[1,5]naphthyridin-4-yl)phenyl]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one;
6-($\{2-[1-(3\text{-chloro-6-methoxy-[1,5]naphthyridin-4-yl)phenyl]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
 $\{2-[1-(3\text{-chloro-6-methoxynaphthyridin-4-yl)piperidin-4-yl}]\text{ethyl}\}$ -(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amine;
6-($\{2-[4-(6\text{-methoxyquinolin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one;
6-($\{2-[4-(6\text{-methoxyquinolin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)- $\{2-[4-(6\text{-methoxyquinolin-4-yl)piperizin-1-yl}]\text{ethyl}\}$ amine;
6-($\{2-[4-(6\text{-methoxynaphthyridin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one;
6-($\{2-[4-(6\text{-methoxynaphthyridin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)- $\{2-[4-(6\text{-methoxynaphthyridin-4-yl)piperizin-1-yl}]\text{ethyl}\}$ amine;
6-($\{2-[4-(3\text{-chloro-6-methoxyquinolin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one;
6-($\{2-[4-(3\text{-chloro-6-methoxyquinolin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
 $\{2-[4-(3\text{-chloro-6-methoxyquinolin-4-yl)piperazin-1-yl}]\text{ethyl}\}$ -(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amine;
6-($\{2-[4-(3\text{-chloro-6-methoxynaphthyridin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one;
6-($\{2-[4-(3\text{-chloro-6-methoxynaphthyridin-4-yl)piperazin-1-yl}]\text{ethylamino}\}$ methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one;
 $\{2-[4-(3\text{-chloro-6-methoxynaphthyridin-4-yl)piperazin-1-yl}]\text{ethyl}\}$ -(2,3-

dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amine;

6-({2-[4-(6-Methoxy-[1,5]naphthyridin-4-yl)-3,6-dihydro-2H-pyridin-1-yl]-2-oxoethylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one;

N-(2-{1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxamide;

N-(2-{1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

N-methyl-N-(2-{1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxamide;

N-methyl-N-(2-{1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

N-(2-{1-[3-chloro-6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

7-{[(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl}ethyl)oxy]methyl}-2,3-dihydro[1,4]dioxino[2,3-c]pyridine;

N-(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl}ethyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxamide;

N-methyl-N-(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl}ethyl)-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxamide;

N-(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

N-methyl-N-(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

6-{[(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]hexahydro-1H-1,4-diazepin-1-yl}ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one;

N-(2-{4-[6-(methyloxy)-1,5-naphthyridin-4-yl]hexahydro-1H-1,4-diazepin-1-yl}ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

6-{[(2-{(1R,4R)-5-[6-(methyloxy)-1,5-naphthyridin-4-yl]-2,5-diazabicyclo[2.2.1]hept-2-yl}ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one;

6-{[(1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one;

6-{[(2-{4-hydroxy-1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one;

6-{{(2-{4-hydroxy-1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl}ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]oxazin-3(4H)-one;

N-(2-{4-hydroxy-1-[6-(methyloxy)-1,5-naphthyridin-4-yl]-4-piperidinyl} ethyl)-3-oxo-3,4-dihydro-2H-1,4-benzothiazine-6-sulfonamide;

6-{{(2-{4-[7-fluoro-6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl} ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one; or

6-{{(2-{4-[7-fluoro-6-(methyloxy)-1,5-naphthyridin-4-yl]-1-piperazinyl} ethyl)amino]methyl}-2H-pyrido[3,2-b][1,4]oxazin-3(4H)-one; or

a pharmaceutical salt ~~or salts~~ thereof.

11. (Currently amended): A pharmaceutical composition, comprising a compound or salt according to claim 1 and a pharmaceutically acceptable carrier.

12. (Currently amended): A method of treating bacterial infections in mammals, which comprises ~~administering~~ administering to a mammal in need thereof an effective amount of a compound or salt according to claim 1.